

## UNITED STATES PATENT AND TRADEMARK OFFICE



UNITED STATES DEPARTMENT OF COMMERCE United States Patent and Trademark Office Address: COMMISSIONER FOR PATENTS P.O. Box 1450 Alexandria, Virginia 22313-1450 www.uspto.gov

APPLICATION NO.	FILING	DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.	
09/671,468	168 09/27/2000		Kazutomo Hasegawa	FUSA 17.792	7120	
26304	7590	02/09/2004		EXAMI	EXAMINER	
KATTEN	MUCHIN ZA	RYMAN, D	RYMAN, DANIEL J			
	ISON AVENUE RK、NY 10022-2585			ART UNIT	PAPER NUMBER	
NEW TOR	K, 141 10022-	-2363		2665	ø	
				DATE MAILED: 02/09/2004	/	

Please find below and/or attached an Office communication concerning this application or proceeding.

	LAngliandian Na	Applicant(a)				
	Application No.	Applicant(s)				
Office Action Summer	09/671,468	HASEGAWA ET AL.				
Office Action Summary	Examiner	Art Unit				
	Daniel J. Ryman	2665				
The MAILING DATE of this communication app Period for Reply	pears on the cover sheet with the c	orrespondence address				
A SHORTENED STATUTORY PERIOD FOR REPL THE MAILING DATE OF THIS COMMUNICATION.  - Extensions of time may be available under the provisions of 37 CFR 1.1 after SIX (6) MONTHS from the mailing date of this communication.  - If the period for reply specified above is less than thirty (30) days, a repl - If NO period for reply is specified above, the maximum statutory period - Failure to reply within the set or extended period for reply will, by statute - Any reply received by the Office later than three months after the mailin earned patent term adjustment. See 37 CFR 1.704(b).  Status	136(a). In no event, however, may a reply be timely within the statutory minimum of thirty (30) days will apply and will expire SIX (6) MONTHS from a cause the application to become ABANDONE!	nety filed s will be considered timely. the mailing date of this communication. D (35 U.S.C. § 133).				
1) Responsive to communication(s) filed on 27 S	September 2000.					
	action is non-final.					
3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under <i>Ex parte Quayle</i> , 1935 C.D. 11, 453 O.G. 213.						
Disposition of Claims						
4) ⊠ Claim(s) <u>1-23</u> is/are pending in the application 4a) Of the above claim(s) is/are withdra 5) □ Claim(s) is/are allowed. 6) □ Claim(s) is/are rejected. 7) □ Claim(s) is/are objected to. 8) ⊠ Claim(s) <u>1-23</u> are subject to restriction and/or	wn from consideration.					
Application Papers						
9) The specification is objected to by the Examine 10) The drawing(s) filed on is/are: a) acc Applicant may not request that any objection to the Replacement drawing sheet(s) including the correct 11) The oath or declaration is objected to by the E	cepted or b) objected to by the lead to by the lead of a drawing(s) be held in abeyance. See the cition is required if the drawing(s) is objected.	e 37 CFR 1.85(a). jected to. See 37 CFR 1.121(d).				
Priority under 35 U.S.C. §§ 119 and 120		) (D) (O)				
12) Acknowledgment is made of a claim for foreig a) All b) Some * c) None of:  1. Certified copies of the priority documen 2. Certified copies of the priority documen 3. Copies of the certified copies of the priority documen application from the International Burea * See the attached detailed Office action for a list 13) Acknowledgment is made of a claim for domest since a specific reference was included in the fir 37 CFR 1.78. a) The translation of the foreign language pr 14) Acknowledgment is made of a claim for domest reference was included in the first sentence of the	ts have been received.  Its have been received in Applicationity documents have been received in (PCT Rule 17.2(a)).  It of the certified copies not received in the certified sopies not received its priority under 35 U.S.C. § 119(a) is sentence of the specification or covisional application has been received its priority under 35 U.S.C. §§ 120	on No  ed in this National Stage  ed.  e) (to a provisional application)  in an Application Data Sheet.  eeived.  and/or 121 since a specific				
Attachment(s)						
1) Notice of References Cited (PTO-892) 2) Notice of Draftsperson's Patent Drawing Review (PTO-948) 3) Information Disclosure Statement(s) (PTO-1449) Paper No(s)	5) Notice of Informal F	(PTO-413) Paper No(s) Patent Application (PTO-152)				

Application/Control Number: 09/671,468 Page 2

Art Unit: 2665

## Election/Restrictions

1. Restriction to one of the following inventions is required under 35 U.S.C. 121:

- I. Claims 1-3, 6-8, 11, and 12, drawn to adding data contained in the training symbol sequence to the beginning or end of the symbol sequence, classified in class 375, subclass 229.
- II. Claims 4 and 9, drawn to making the length between signal bursts a wholenumber multiple of a cycle of the pilot tone, classified in class 370, subclass 503.
- III. Claims 5 and 10, drawn to making the phase difference between a transmit symbol and a training symbol be a whole-number multiple of a cycle of the pilot tone, classified in class 370, subclass 516.
- IV. Claims 13-23, drawn to incorporating cross-talk timing information in a training symbol sequence, classified in class 370, subclass 201.

The inventions are distinct, each from the other because of the following reasons:

- 2. Inventions I and II are related as subcombinations disclosed as usable together in a single combination. The subcombinations are distinct from each other if they are shown to be separately usable. In the instant case, invention I has separate utility such as adding data contained in the training symbol sequence to the beginning or end of the symbol sequence. See MPEP § 806.05(d).
- 3. Inventions I and III are related as subcombinations disclosed as usable together in a single combination. The subcombinations are distinct from each other if they are shown to be separately usable. In the instant case, invention I has separate utility such as adding data

Application/Control Number: 09/671,468

Art Unit: 2665

contained in the training symbol sequence to the beginning or end of the symbol sequence. See MPEP § 806.05(d).

- 4. Inventions I and IV are related as subcombinations disclosed as usable together in a single combination. The subcombinations are distinct from each other if they are shown to be separately usable. In the instant case, invention I has separate utility such as adding data contained in the training symbol sequence to the beginning or end of the symbol sequence. See MPEP § 806.05(d).
- 5. Inventions II and III are related as subcombinations disclosed as usable together in a single combination. The subcombinations are distinct from each other if they are shown to be separately usable. In the instant case, invention II has separate utility such as making the length between signal bursts a whole-number multiple of a cycle of the pilot tone. See MPEP § 806.05(d).
- 6. Inventions II and IV are related as subcombinations disclosed as usable together in a single combination. The subcombinations are distinct from each other if they are shown to be separately usable. In the instant case, invention II has separate utility such as making the length between signal bursts a whole-number multiple of a cycle of the pilot tone. See MPEP § 806.05(d).
- 7. Inventions III and IV are related as subcombinations disclosed as usable together in a single combination. The subcombinations are distinct from each other if they are shown to be separately usable. In the instant case, invention III has separate utility such as making the phase difference between a transmit symbol and a training symbol be a whole-number multiple of a cycle of the pilot tone. See MPEP § 806.05(d).

Art Unit: 2665

8. Because these inventions are distinct for the reasons given above and have acquired a separate status in the art as shown by their different classification, restriction for examination purposes as indicated is proper.

9. A telephone call was made to Thomas Bean on 22 January 2004 to request an oral election to the above restriction requirement, but did not result in an election being made.

Applicant is advised that the reply to this requirement to be complete must include an election of the invention to be examined even though the requirement be traversed (37 CFR 1.143).

10. Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Daniel J. Ryman whose telephone number is (703)305-6970. The examiner can normally be reached on Mon.-Fri. 7:00-5:00 with every other Friday off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Huy Vu can be reached on (703)308-6602. The fax phone number for the organization where this application or proceeding is assigned is (703)308-6743.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703)305-3900.

Page 5

Application/Control Number: 09/671,468

Art Unit: 2665

Examiner Art Unit 2665

WR

Daniel J. Ryman

HUY D. VU SUPERVISORY PATENT EXAMINER TECHNOLOGY CENTER 2600